J. MARCUS.

CHIMNEY COWL OR VENTILATOR.

APPLICATION FILED AUG. 11, 1909.

944,043. Patented Dec. 21, 1909.

Fig. 1

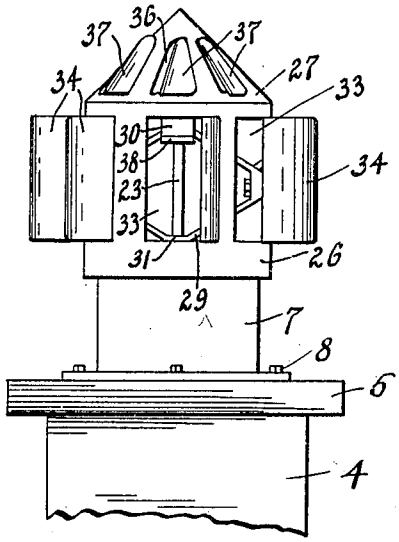


Fig. 2

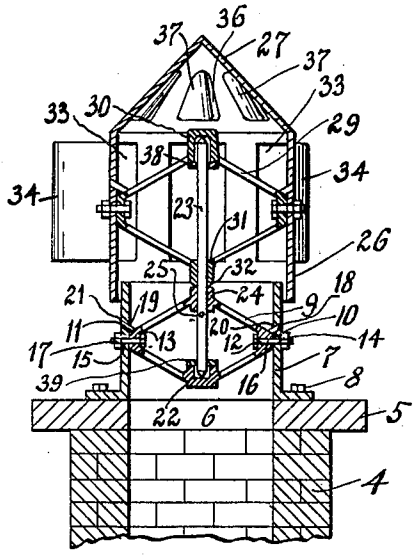
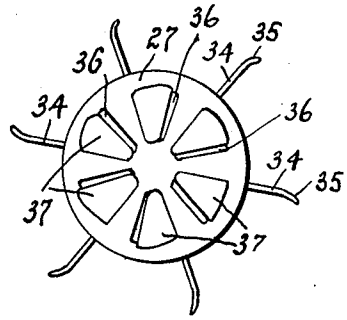


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

JACOB MARCUS, OF NEW YORK, N. Y.

CHIMNEY COWL OR VENTILATOR.

944,043. Specification of Letters Patent. Patented Dec. 21, 1909.

Application filed August 11, 1909. Serial No. 512,374.

To all whom it may concern:

Be it known that I, JACOB MARCUS, a subject of the King of Roumania, and resident of the city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Chimney Cowls or Ventilators, of which the following is a specification.

The present invention relates to chimney cowls or ventilators which are pivotally mounted upon the chimney top and adapted to be moved by wind pressure.

One of the objects of the invention is to provide an improved construction, whereby the efficiency of the device of the class described is greatly increased, and a strong outward draft created by external wind currents passing through the cowl, and carrying with it the smoke.

Another object of the invention is to provide a cowl which is very simple and cheap in construction, and one which can be easily operated by the slowest current of air.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts, as will be hereinafter fully described and pointed out in the appended claim.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the improved chimney cowl or ventilator, Fig. 2 is a vertical sectional view of the same, and Fig. 3 is a plan view thereof.

Referring now to the drawings, the numeral 4 indicates an ordinary chimney to conduct the combustible gases from the fire to the outer air; the chimney top-stone 5 being held therein in the usual manner. To the chimney top-stone 5 and registering with the passage 6 is attached an upwardly extending pipe 7, as for instance by screws 8 or their equivalents. To the inside of this pipe section 7 is fastened a bracket 9, which is, as shown in the drawings, diamond shaped, although it will be understood that it may be of any other suitable configuration or shape. At two of its corners the bracket is flattened, as indicated at 10 and 11, and provided with holes 12 and 13, registering with the holes 14 and 15 in the pipe section 7; the holes of the bracket and pipe section being engaged by screws 16 and 17, or rivets, for holding the bracket in position upon the pipe section. There are furthermore provided upon said two corners lugs 18 and 19, respectively, engaging the holes 20 and 21, respectively, of the pipe section 7, to prevent the bracket from turning, whereby the same is always held firmly in a vertical plane. In the lower corner of said bracket is arranged a bearing 22 for a spindle 23, which extends upwardly through a sleeve 24 in the upper corner of the bracket, there being provided a cotter pin 25 below the sleeve 24 to hold the spindle in place.

The chimney cowl or ventilator consists of a tubular member 26, open at its lower end, and closed at its upper end by a conical cap 27, secured thereto in any suitable manner, or made integral therewith. The tubular member 26 is of a somewhat larger diameter than the pipe section 7, allowing thereby the outer air to pass into the tubular section 26. A bracket 29, of a configuration similar to that of the bracket 9 is carried inside of the tubular section 26, and is secured thereto in the same manner as the said bracket 9 is attached to the pipe section 7. A bearing 30 is provided at the upper corner of the bracket 29, and a sleeve 31 at its lower corner, the surface of which sleeve is convex, as indicated at 32, to reduce the friction between the two sleeves.

In the tubular member 26 are provided a plurality of longitudinal slots 33, at one edge whereof are arranged radial vanes 34, extending outwardly and being slightly bent at their outer ends 35. These vanes may be made integral with the tubular member 26, by slitting the said tubular member along three edges of the slots and bending then the material, so slit, outwardly, or the said vanes may be secured to the tubular member in any suitable manner. Slots 36 are provided in the conical cap 27; the vanes 37 adjacent to said slots being bent outwardly in such a manner that the said slots will be practically covered against rain or snow.

The operation of the device is as follows: The current of air constantly rotates the cowl by acting upon the vanes 34 thereof, inducing thereby a flow of air from the interior of the chimney through the outlets 36 in the cap thereof. By providing the outlets 36 in the cap, the efficiency of the cowl or ventilator is greatly increased. The current of air passing through the slots 33, increases also the efficiency of the device. It will be easily seen, that the slightest

movement of the air imparts a motion to the cowl, since the vanes 34 thereof are outwardly bent and present thereby a comparatively large surface to the air to act upon.

In order to protect the bearings from soot and ashes, the bearings of the spindle 23 may be covered by plates 38 and 39, secured to said bearings in any suitable manner.

What I claim is:

In a chimney cowl, the combination with a stationary tubular member secured to the top of the chimney and being provided with two holes, of a diamond shaped bracket arranged in said tubular member, means for securing said bracket to said tubular member, lugs upon those corners of the bracket which contact with said tubular member engaging said holes whereby said bracket is prevented from turning relatively to said tubular member, a spindle rotatably carried by said bracket, means for preventing the vertical movement of said spindle, a tubular member closed at its upper end by a conical cap and having a plurality of longitudinal slots in its tubular portion and its conical cap, a diamond shaped bracket therein and secured to the same in the same manner as said first bracket is secured to said stationary tubular member, said second bracket engaging said spindle whereby said second tubular member is adapted to rotate upon said spindle, and vanes arranged adjacent to said slots and extending radially outward from said tubular portion and cap, the outer ends of the vanes upon said tubular portion being slightly bent to present a surface to the wind to act upon.

Signed at New York, in the county of New York and State of New York, this 29th day of July, A. D. 1909.

JACOB MARCUS.

Witnesses:

SIGMUND HERZOG,

S. BIRNBAUM.